

SARSIELLA MAURAE, A NEW SPECIES OF MARINE  
OSTRACODA (SARSIELLIDAE: MYODOCOPINA) FROM  
BAHÍA DE LOS ANGELES, GULF OF CALIFORNIA, MEXICO

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*Abstract.*—Kornicker, Louis S., Department of Invertebrate Zoology, Smithsonian Institution, Washington, D.C. 20560.—*Sarsiella maurae*, a new species of marine Ostracoda (Sarsiellidae: Myodocopina) is described from Bahía de Los Angeles, Gulf of California, Mexico. This is the first record of the family from the Gulf.

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This paper describes and illustrates a new species of benthic myodocopid ostracode from Bahía de Los Angeles, Gulf of California, Mexico. No myodocopid Ostracoda have been described previously from the Gulf of California. Bahía de Los Angeles is a small bay along the eastern shore of Baja California. Barnard and Grady (1968) have presented a general account of the bay environment. Shore sediments consist mostly of shell fragments and rocks. The available data for 1962, the year in which the species described herein was collected, show a low temperature of less than 15°C in February and a high of 29.8°C in August. Salinities in the bay in April were recorded as 35.25‰ at the surface and 35.10‰ at a depth of 30 m.

Suborder MYODOCOPINA

Sarsiellidae Brady and Norman, 1896

*Sarsiella* Norman, 1869

*Sarsiella maurae*, new species

Figs. 1-6

*Etymology.*—The species is named for Maura McManus, Smithsonian Institution, who assisted in the preparation of the manuscript.

*Holotype.*—USNM 156739, unique specimen, adult or A-1 female, length 1.22 mm, on slides and in alcohol.

*Type-locality.*—Bahía de Los Angeles, station SIO-62-216, 21 April 1962, shore sample, reef between Isla Ventana and Isla Cabeza de Caballo, tailings of fish sample. Collected by Dr. Carl L. Hubbs and party, Scripps Institution of Oceanography. Specimen received from Dr. J. Laurens Barnard.

*Description of female (either adult or A-1 instar).*—Carapace oval in lateral view with small posteroventral caudal process (Figs. 1, 2); carapace broadest in posterodorsal part (Fig. 3a).

Ornamentation (Figs. 1-4b, c): Each valve with 7 ribs radiating from hub in area of central adductor muscle attachment (Figs. 1, 2); rib extending onto posterodorsal part of valve terminating at low ridge and more

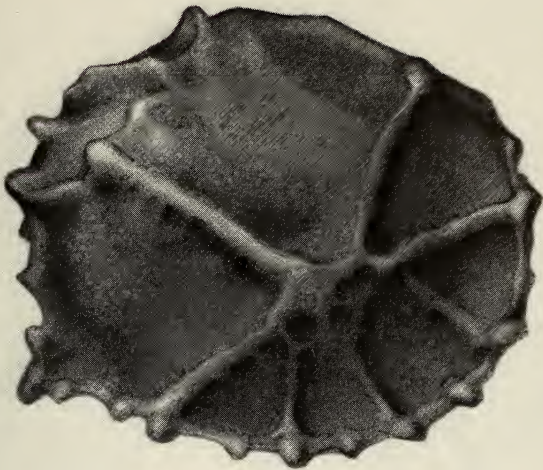


Fig. 1. *Sarsiella maura*: Lateral view of complete specimen, length 1.22 mm.

prominent than other ribs; ventral, anterior, and anterodorsal ribs each terminating in small marginal process; 1 or 2 small marginal processes present between rib terminals; posterior of valve dorsal to caudal process with 4 small marginal processes; an additional small process present on posterodorsal margin; several shallow fossae present at hub of radial ribs; minute spines present on caudal processes and on marginal processes (Figs. 3d-g); surface between ribs with minute pits and pebbly texture (Fig. 4c); long bristles along anterior, ventral, and posterior margins of each valve and sparsely distributed on valve surface (Figs. 2, 3h, i, 4b).

Infold (Figs. 4a, d-h): Minute bristle near middle of anterior infold; caudal processes with 4 or 5 bristles with single or double pointed tips (Figs. 4e, g, 5a); inner edge of infold of ventral margin near caudal process with 4 or 5 slender bristles with open ends (Figs. 4h, 5a); posterior infold dorsal to caudal process with 2 setose bristles (Figs. 4f, 5a).

Size: Holotype, length 1.22 mm, height 1.06 mm.

First antenna (Fig. 5b): 1st joint bare; 2nd joint with 1 dorsal bristle and spines along dorsal margin; 3rd and 4th joints fused; 3rd joint with 1 dorsal bristle, but without ventral bristle; 4th joint with spines forming rows on medial surface and along dorsal and ventral margins, and with 3 bristles, 1 dorsal, 2 ventral; 5th joint with spines forming row on distal dorsal corner; sensory bristle of 5th joint with 1 minute proximal filament and

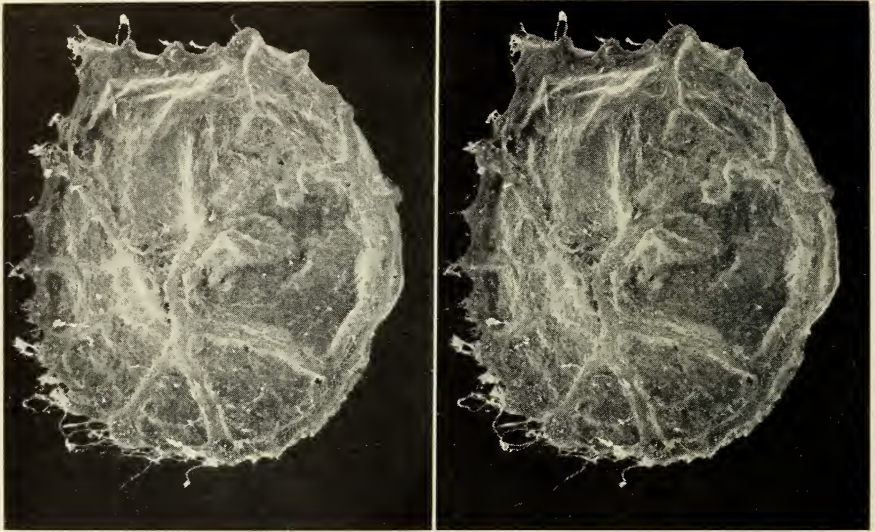


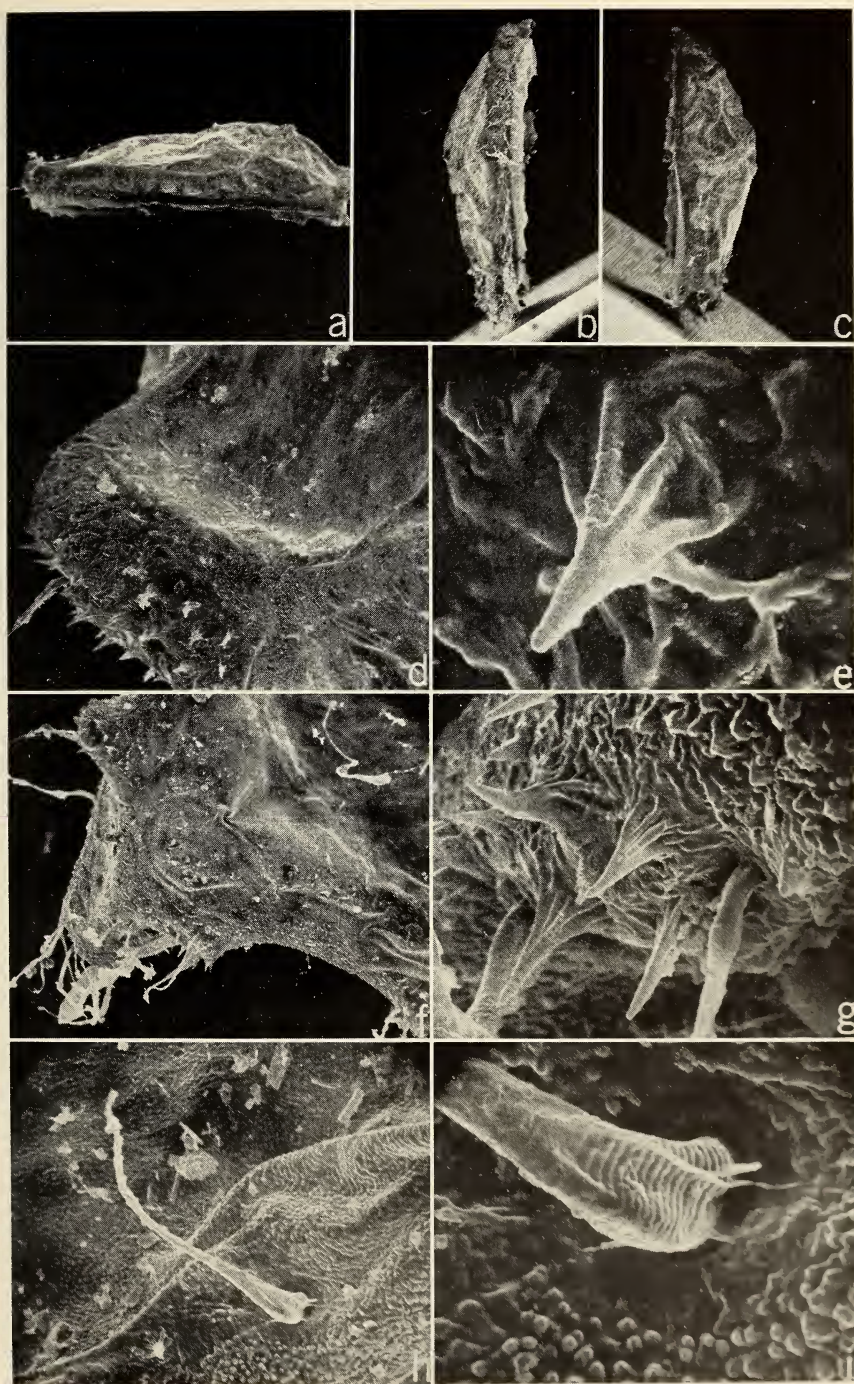
Fig. 2. *Sarsiella maura*: Stereoscopic pair showing lateral view of carapace, dorsal to right; length of specimen 1.22 mm.

spine at tip; medial bristle of small 6th joint short. Seventh joint: a-bristle about 3 times length of bristle of 6th joint; b-bristle about twice length of a-bristle, with minute spine at tip; c-bristle about same length as sensory bristle of 5th joint, with 1 minute proximal filament and minute spine at tip. Eighth joint: d- and e-bristles bare, slightly shorter than c-bristle; f-bristle shorter than c-bristle, with 1 minute proximal filament and 1 minute terminal spine; g-bristle same length as c-bristle, with 1 minute proximal filament and spine at tip.

Second antenna: Protopodite bare. Endopodite 1-jointed, with small terminal protuberance, 2 short anterior proximal bristles, and 1 or 2 short terminal bristles (Fig. 5c). Exopodite: 1st joint with small recurved medial bristle on distal margin; bristle of 2nd joint with about 28 proximal ventral spines and distal natatory hairs; bristles of joints 3-8 with proximal ventral spines and distal natatory hairs; 9th joint with 1 long bristle with few prox-

Fig. 3. *Sarsiella maura*: Outside views of right valve: a, Dorsal view,  $\times 68$ ; b, Anterior view,  $\times 68$ ; c, Posterior view,  $\times 68$ ; d, Posterior end of posterior rib, from Fig. 2,  $\times 625$ ; e, Process on posterior rib, from d,  $\times 7,500$ ; f, Caudal process, from Fig. 2,  $\times 360$ ; g, Processes and bristles on caudal process, from f,  $\times 3,500$ ; h, Bristle from near middle of carapace,  $\times 1,450$ ; i, Base of bristle shown in h,  $\times 5,500$ . Given magnifications are those at which the micrographs were made on SEM; these have been reduced 58% for publication.





imal ventral spines and many distal natatory hairs, and 1 short dorsal bristle with short marginal hairs; basal spines absent; no short spines observed along distal margins of joints.

Mandible (Fig. 5d): Coxale endite represented by stout spine; ventral margin of coxale hirsute. Basale: dorsal margin with 1 short bristle at middle and 2 subterminal; medial side with 2 short bristles near ventral margin; ventral margin with 1 minute and 1 short bristle; lateral surface with 2 short bristles near ventral margin. Exopodite absent. Endopodite: 1st joint with spines on medial surface, shorter spines forming medial row on distal margin near dorsal edge, and stout ventral claw; 2nd joint with small, terminal, dorsal bristle and stout ventral claw; 3rd joint with stout claw and 2 minute bristles, 1 ventral and 1 dorsal to base of claw.

Maxilla: Protopodite with hairs along dorsal margin; 3 endites with total of about 11 bristles. Basale with 1 short bristle at distal dorsal corner and 1 near base of exopodite. Exopodite with 3 bristles: 1 long and bare, 1 about half length of long bristle and with few spines, and 1 about  $\frac{3}{4}$  length of short bristle and bare. Endopodite: 1st joint with stout spinous alpha- and beta-bristles and spines along anterior margin proximal to alpha-bristle; 2nd joint with 2 short a-bristles, 1 short c-bristle, and 5 pectinate end bristles.

Fifth limb (Fig. 6a): Single endite with 1 short bristle; 2nd to 5th joints fused; 2nd joint with 3 terminal bristles; 3rd to 5th joints with total of 5 bristles; 2nd to 5th joints hirsute.

Sixth limb (Fig. 6b): Single endite with 1 long terminal bristle and 2 short proximal bristles; end joint with 13 bristles with faint marginal hairs followed by space and then 2 stout hirsute posterior bristles; limb hirsute.

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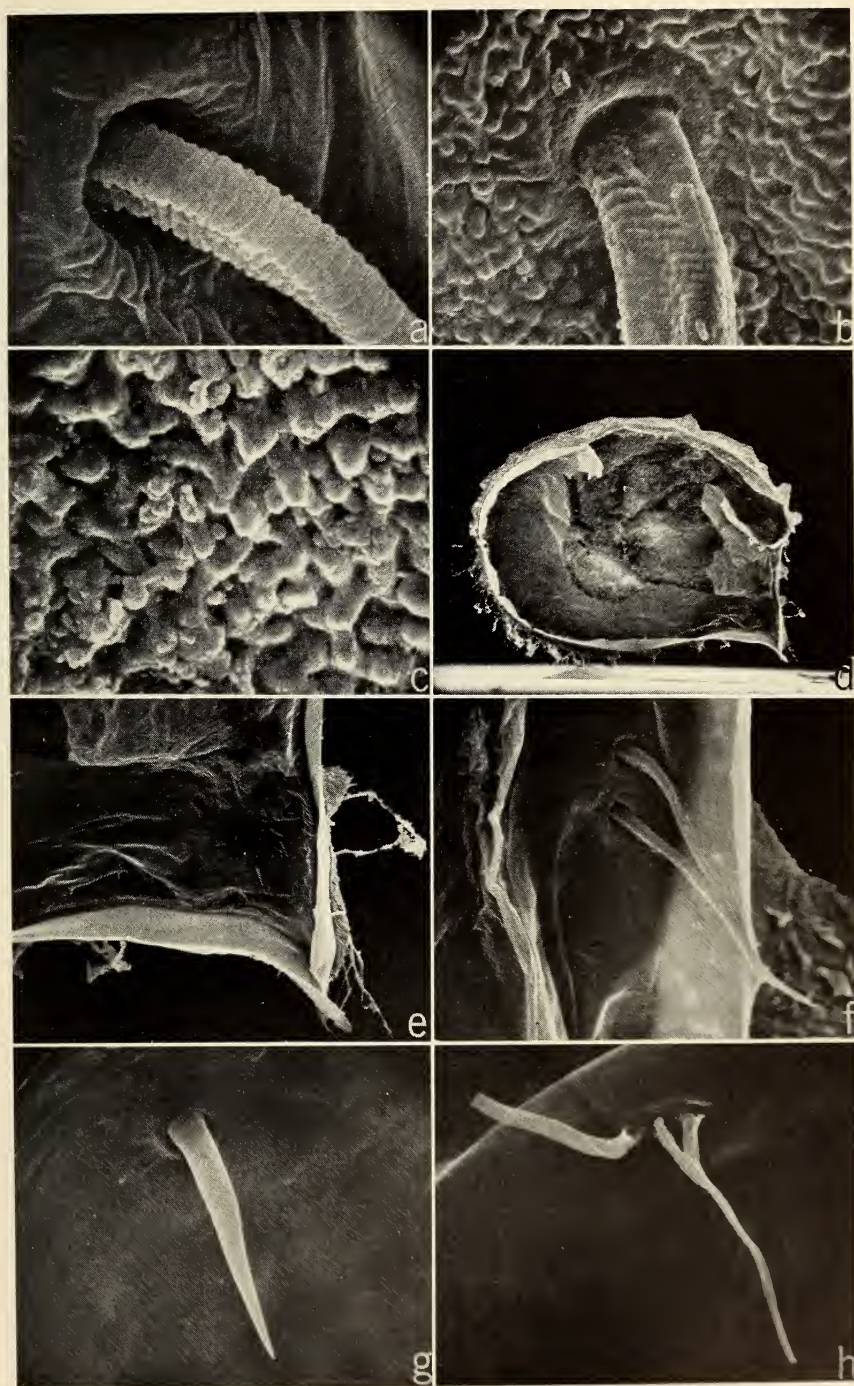
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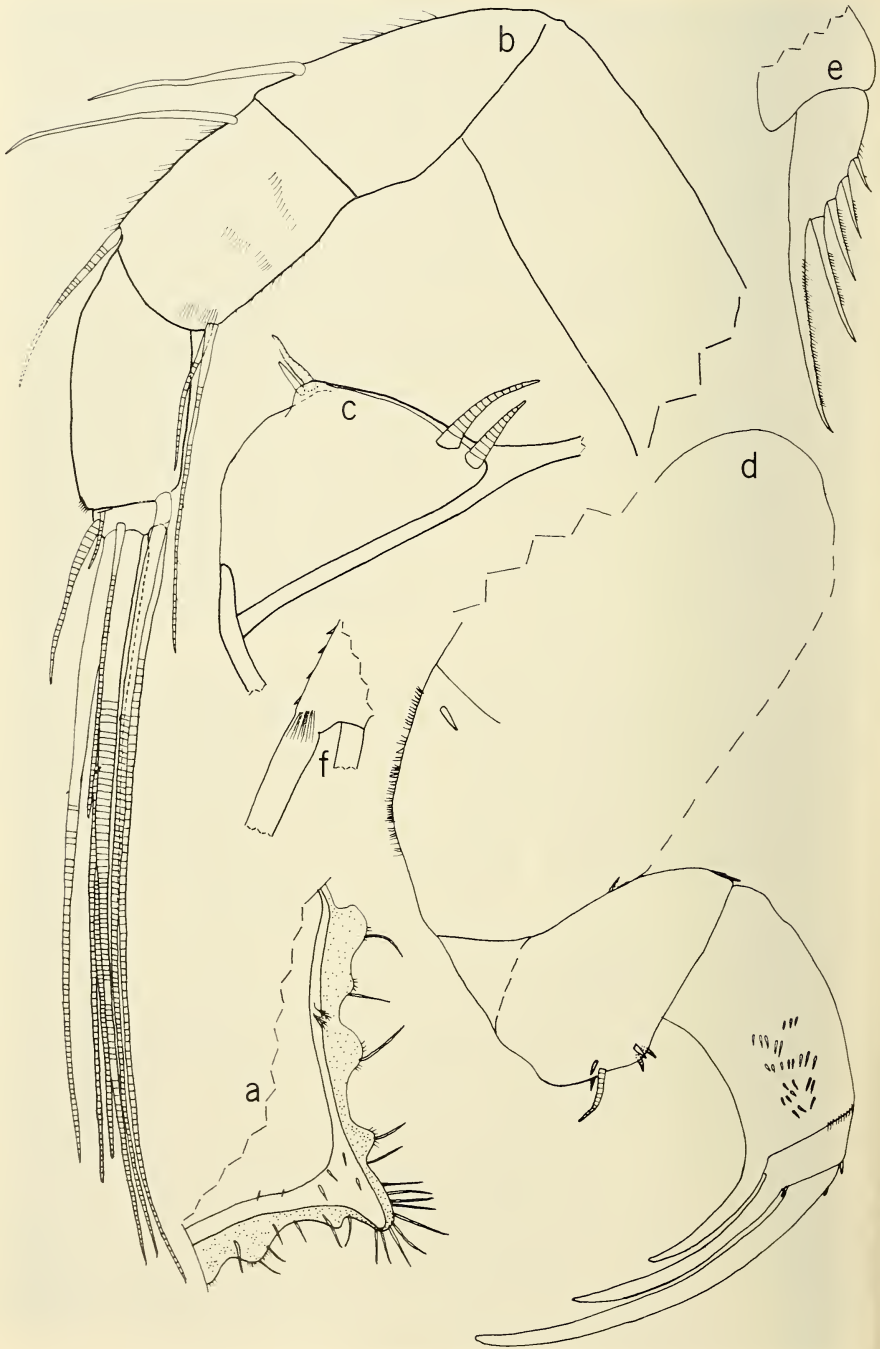
Fig. 4. *Sarsiella maura*: a, Base of upper bristle shown in f,  $\times 9,000$ ; b, Base of bristle from near middle of outside of valve,  $\times 5,500$ ; c, Detail of surface near middle of outside of valve,  $\times 10,000$ ; d, Inside view of valve (top tilted about  $30^\circ$  forward),  $\times 65$ ; e, Inside view of caudal process shown in d,  $\times 260$ ; f, Two setose bristles on posterior infold dorsal to caudal process,  $\times 1,500$ ; g, Bristle on infold of caudal process shown in e,  $\times 3,200$ ; h, Tubular bristles on inner edge of ventral infold just anterior to caudal process,  $\times 2,900$ . Given magnifications are those at which the micrographs were made on SEM; these have been reduced 58% for publication.

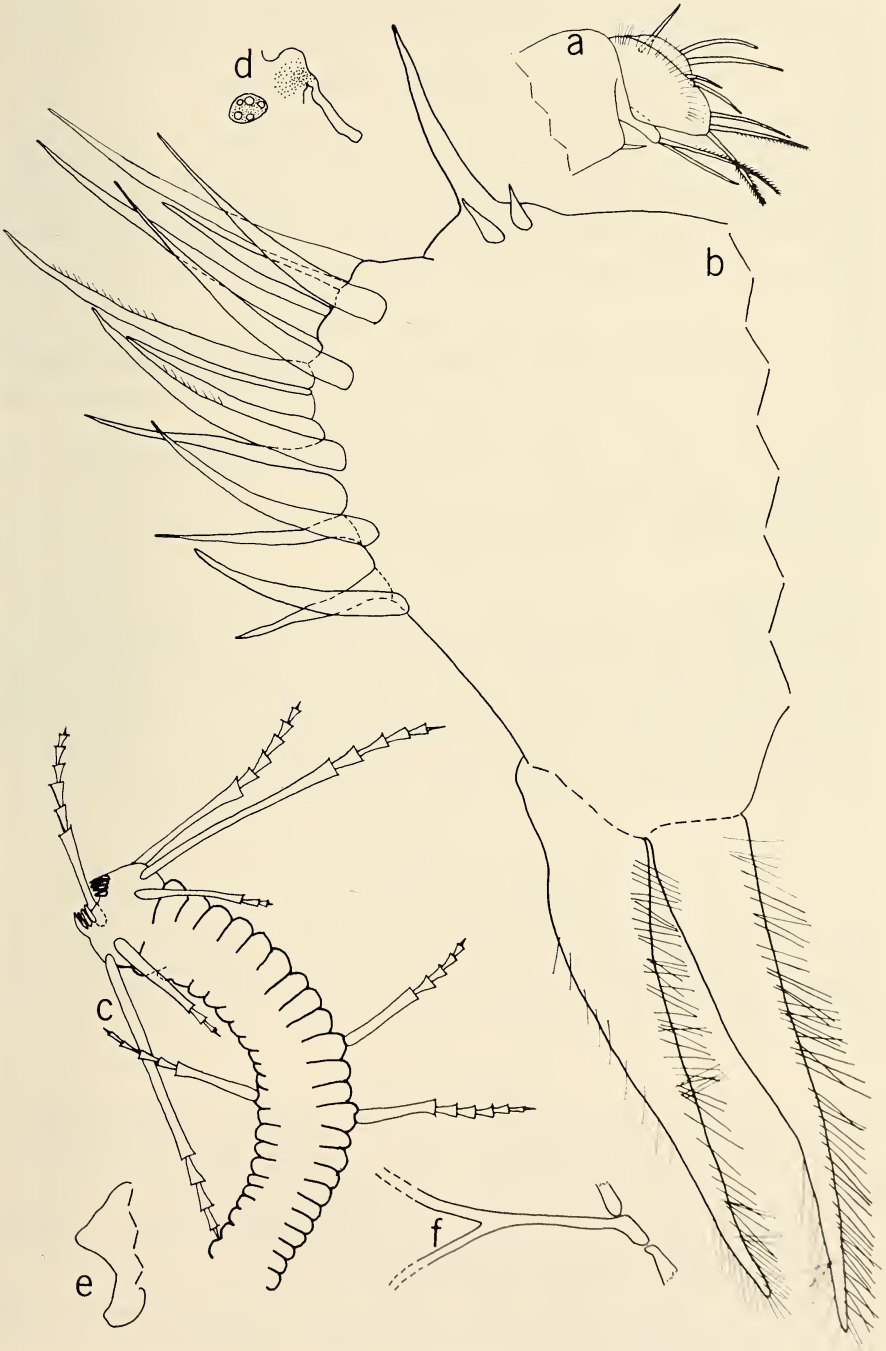
Fig. 5. *Sarsiella maura*: a, Posterior of right valve, inside view; b, 1st antenna, medial view; c, Endopodite of right 2nd antenna, medial view; d, Left mandible, medial view; e, Left lamella of furca, lateral view; f, Anterior of right lamella of furca showing proximal parts of claws 1 and 2, medial view.

Fig. 6. *Sarsiella maura*: a, 5th limb; b, 6th limb; c, 7th limb; d, Right lateral eye, medial eye and rod-shaped organ; e, Anterior of body showing anterior process and upper lip; f, Left Y-sclerite, lateral view, anterior to left.











Seventh limb (Fig. 6c): Distal group with 6 bristles, 3 on each side; proximal group with 3 or 4 bristles, 1 or 2 on each side; each bristle with 3 to 6 bells. Terminus consisting of opposing combs, each with 5 or 6 curved teeth.

Furca (Fig. 5e, f): Each lamella with 5 claws followed by 3 or 4 spines; claw 1 united to lamella, claws 2-5 separated from lamella by suture; claws 1-4 with teeth along posterior margins, some longer than others; claw 5 with few teeth along posterior margin; right lamella with few spines along anterior margin proximal to claw 1, and long medial hairs at base of claw 1.

Eyes and rod-shaped organ (Fig. 6d): Medial eye with dark brown pigment, bare; lateral eye about same size as medial eye, with 5 ommatidia and dark brown pigment between ommatidia; rod-shaped organ elongate, 1-jointed with rounded tip.

Upper lip: Helmet shaped with small anterior projection (Fig. 6e).

Genitalia: Not observed.

Brushlike organ: Not observed.

Y-Sclerite: Typical for genus (Fig. 6f).

Eggs: None.

*Comparisons.*—The ornamentation of the carapace of the new species *S. maura* differs from that of previously described species of *Sarsiella*. Also, the 3rd joint of the 1st antenna of *S. maura* is without a ventral bristle, whereas previously described species in the family have a ventral bristle on the 3rd joint. However, because only 1 specimen of *S. maura* is on hand, it is not possible to ascertain the variability of this character.

#### Acknowledgments

I wish to thank the following individuals: Dr. J. Laurens Barnard for submitting the specimen described herein, Carolyn Bartlett Gast for rendering the illustration of the carapace in Fig. 1, Mr. Walter R. Brown for assisting in the operation of the scanning electron microscope, and Anne C. Cohen for criticizing the manuscript.

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